

Date: Thursday, 9/11/2008 10:15:40 AM
 User: Chantal Lavoie

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	ALUMINUM BILLET RD
Job Number :	41964	Part Number :	D6103001
Estimate Number :	11109	Drawing Number :	D6103 REVA
P.O. Number :		Project Number :	N/A
This Issue :	9/11/2008	Drawing Revision :	A
Prsht Rev. :	NC	Material :	
First Issue :	1/1	Due Date :	9/26/2008
Previous Run :	25572	Qty:	40
Written By :			Um: Each
Checked & Approved By :			
Comment :	Est Rev:A 01.05.08 New Issue EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 7144

a) Description: Alluminum billet

b) Ø3.250" x 12.500" long

c) Tolerance on all dimensions are +0.030"/-0.000"

d) Material: 7075-T6/T651 (QQ-A-200/11 or QQ-A-225/9)

Material certification required

C 08/09/11

(40)

2.0	D6103001P	7075-T651 3.250D x 12.5L
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 40.0000 Each(s)

7075-T651 3.250D x 12.5L

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive & Inspect for transit damage Ensure certification are attached

P 08/09/06 (44)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

SA 08/10/09

(44)

5.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: CNC

J.F. 08/10/09

(44)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 9/11/2008 10:15:41 AM
User: Chantal Lavoie

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ALUMINUM BILLET RD

Job Number: 41964

Part Number: D6103001

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC21

FINAL INSPECTION/W/O RELEASE



08/10/09 JF

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mf 08-10-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

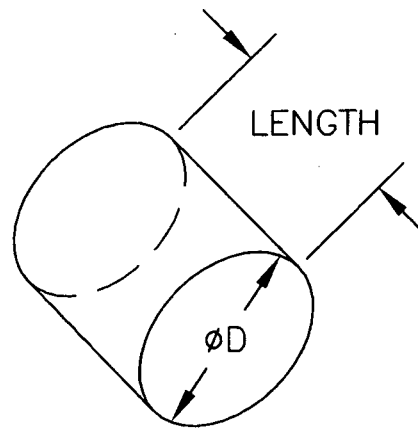
DART

DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED HKS	APPROVED HKS	DRAWING NO. D6103	Rev. B SHEET 1 OF 1
DATE 06.01.31		TITLE ROUND BILLET, ALUMINUM	SCALE NTS
A	01.04.10	NEW ISSUE	
B	06.01.31	ADD D6103-003	

SPECIFICATION CONTROL DRAWING

RELEASED
06.02.07

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 41964



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY,
DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	D (Diameter)	Length
D6103-001	7075-T6/T651 (QQ-A-200/11 OR QQ-A-225/9)	Ø3.250	12.50
D6103-003	7075-T7351 (QQ-A-225/9)	Ø3.500	12.50

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Certified Inspection Report

11:11:12

Massena Operations
Park Avenue East, Massena, NY 13662



Customer Castle A M & Co	Customer P.O. No. 01-14095	Customer Part No. (43134)	Alcoa Order No. MMC-89711-001	Govt. Contract No.
Ship To A. M. Castle & Company 3400 North Wolf Road Bay #7 Franklin Park, IL 60131			We hereby certify that the material covered in this report has been inspected in accordance with, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and have the mechanical properties shown on the face of this sheet. Manufactured under an ISO/9000 registered quality management system. Melted and manufactured in the USA. Thomas J. Klemp, Quality Assurance Manager	

Date Shipped 09/15/08	Weight Shipped 1,942 lbs	Product CFRB-CF ROD	Specific Length	BOL 000156863
Alloy - Temper 7075-T651	Size 3.25000 IN	Shape DIA	Config 12 FT	QRR

Specifications:

A97075-02 Rev 14 w/comments per J Brock
ltr dtd 5/16/06
QQA-225/9E
ASTM B211-03
AMS 4123H (Except Marking)
AMS-QQA-225/9
Material conforms to T6 requirements

CASTLE METALS CORP.
DATE RCVD 9/17/08
IAC 1331
APPROVED BY

Product produced and marked to the requirements of AMS-QQ-A-225/9 also meets the requirements of QQ-A-225/9.
Product produced and marked to the requirements of QQ-A-225/9 also meets the requirements of AMS-QQ-A-225/9.

TEST REQUIREMENTS	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	U.T.S.	T.Y.S.	%Elong							
Max:										
Min:	77.0	66.0	07.0							

Test Results Lot / Work Order MA20083595	No. of Tests 1	Test	Test	Test	Test	Test	Test	Test	Test	Test
		U.T.S.	T.Y.S.	%Elong						
Max:		80.9	74.2	13.0						
Min:		80.9	74.2	13.0						

TEST ABBREVIATIONS
U.T.S. Ultimate Tensile Strength KSI T.Y.S. Tensile Yield Strength KSI %Elong Elongation % in 2"


Aluminum Association Chemical Composition Limits (in Weight %)											
ALLOY	MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%Others	%Others
7075	MIN	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15
				1.2		2.1	0.18	5.1		Each	Total
										Rem	

Actual Started Chemistry

LOT/WORK ORDER											
MA20083595	MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%OE	%OT
	MIN	0.08	0.16	1.6	0.01	2.4	0.20	5.6	0.03	LT 0.05	LT 0.15
		0.08	0.16	1.4	0.01	2.4	0.20	5.5	0.03		Rem

VOTES:

Mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product.
This alloy meets the requirements of EU 2002/95/EC (RoHS) and EU 2000/53/EC for lead, mercury, cadmium and hexavalent chromium.

1. NO. COM-ORD. NO. 571381		2. NO. TRANS. 438646		3. NO. ORDER. 01		 Métaux Castle®		4. CERTIFICATION A.M. CASTLE & Co. (Canada) Inc.		5. SHIPPED OCT 3 - 2006		6. NO. COM-ORD. NO. 571381							
O. REQUISITION CLIENT-CUSTOMER REQUISITION NO.				NO. COM. CLIENT-CUST. ORD. NO. 7144				COMPTÉ-ACCT. 91037		VEND.-SLS 200		TERR. 50		EXPÉD. PAR-SHIP VIA ***** TRANSHIPMENT *****					
CHETEUR-PURCHASING AGENT LINDA LACELLE				TELEPHONE 613 692-3336		H/C TAXE 9-0		NO. COM. ORD. 1		REGION LIVRAISON-DEL. ZONE C/C		F.A.B.-F.O.B. PREPAID		BILL NO. FEVILE/EMBALLAGE-B/L NUMBER					
IVRÉ A-SHIP TO:				VENDU A-SOLD TO: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY ON K6A 1K7				INFORMATION CRÉDIT-CREDIT INFORMATION				ROUTE 01-NL-09/2 30-NL-10/0 31-NL-10/1							
INSTRUCTIONS/LIVRAISON-DELIVERY ***** TRANSHIPMENT ***** PRIOR DIST/ORD: 01 658646				INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.) INQ-183655				INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)											
DESCRIPTION - ITEM 1 3.2500 RD 7075-T651 ALUM BAR CF 12.50" BLACK										QTE/UNITE COM.-ORDERED 44 PCS		PCES/PO COM.-ORD. POS		POIDS COM.-WT. ORDERED 461					
<div><div>CERTIFICATE OF CONFORMANCE</div><div>A.M. Castle & Co. certifies that the material(s) supplied under this document will meet and conform to the specifications of the product(s) described hereon. A.M. Castle & Co. (Canada) Inc.</div><div>WEIGHT FOR SHIPPING PURPOSES ONLY. SEE INVOICES FOR ACCURATE BILLING WEIGHT. PLEASE SIGN AND DATE DRIVER'S COPY FOR RECEIPT OF MATERIAL AND, IF CHECKED, TEST REPORTS.</div></div>										BALLOTS-BUNDLES 1		PCES/PD EXP. SHIP 44		POIDS EXP.-WT. SHIPPED 469		FORME-SHAPE 10.054FT		I.A.C. 43134	
INSTRUCTIONS TOL + 1/8" - 0 CHICAGO:SHIP 4 FULL BARS CUT IN MONTREAL PRIOR DIST/ORD: 01 658646										COULÉE INFO-HEAT INFO QTE-QTY MA20083595 ✓		INSTRUCTIONS (CONT'D.) 44x12 1/2"		ENT.-WT.					
DESCRIPTION - ITEM 2										QTE/UNITE COM.-ORDERED		PCES/PO COM.-ORD.		POIDS COM.-WT. ORDERED					
<div><div>TERMS AND CONDITIONS OF SALE</div><div>SEE DISCLAIMERS AND LIMITATIONS ON THE REVERSE SIDE</div></div>										BALLOTS-BUNDLES		PCES/PD EXP. SHIP		POIDS EXP.-WT. SHIPPED		FORME-SHAPE I.A.C.			
INSTRUCTIONS <div>1 BOX</div>										COULÉE INFO-HEAT INFO QTE-QTY		INSTRUCTIONS (CONT'D.)		ENT.-WT.					
DESCRIPTION - ITEM 3										QTE/UNITE COM.-ORDERED		PCES/PO COM.-ORD.		POIDS COM.-WT. ORDERED					
<div><div>ALL EXCEPTIONS FOR SHORTAGE OR DAMAGE MUST BE NOTED ON THE DRIVER COPY & CUSTOMER COPY OF THE DELIVERY RECEIPTS & SIGNED BY THE DRIVER & CUSTOMER. COPY OF SUCH RECEIPT PROPERLY NOTED MUST BE SUBMITTED WITHIN 10 DAYS WHEN CREDIT IS REQUESTED.</div><div>NOM (LETTRE MOULÉE)-NAME (PRINT ONLY)</div><div>RECU PAR-RECEIVED BY</div></div>										BALLOTS-BUNDLES		PCES/PD EXP. SHIP		POIDS EXP.-WT. SHIPPED		FORME-SHAPE I.A.C.			
INSTRUCTIONS <div>1/28/10/06</div>										COULÉE INFO-HEAT INFO QTE-QTY		INSTRUCTIONS (CONT'D.)		ENT.-WT.					
DATE RECU-DATE RECEIVED																			